

Does Foreign Aid Aid Corruption?
How Veto Players Mediate the Effect of Aid

By

NICHOLAS PETER VERBON
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Approved:

Chair, Dr. Gabriella Montinola

Dr. Amber Boydston

Dr. James Adams

Committee in Charge

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Abstract

Does aid influence corruption among recipient countries? Existing work on foreign aid and corruption makes the implicit assumption that aid resources will have a uniform impact across all aid recipients. While some recipients are likely to direct such resources to combat corruption, other aid recipients may be less likely to do so. I argue that aid's effect on corruption will vary across the domestic political contexts of aid recipients. In particular, I contend that the number of veto players—actors that can halt or alter policymaking—mediates the relationship between aid and corruption. My empirical work suggests that aid actually reduces corruption among recipients with more than one total veto player. Furthermore, aid's negative effect on corruption grows stronger with each additional veto player. In systems with only one veto player, however, aid appears to have no discernible effect on corruption.

Over the past few decades, industrialized nations have donated increasingly large sums of foreign aid to developing nations with the goal of advancing economic and political objectives, such as enhancing fiscal responsibility and strengthening democratic institutions. In the 2009 fiscal year alone, the World Bank celebrated aid commitments totaling over US \$60 billion, including over 750 development projects (World Bank 2009). Signaling a rise of non-Western donors, China recently pledged \$10 billion dollars in low-interest development loans to Africa over the next three years (Wines 2009). Many policymakers and a handful of scholars have highlighted the promise of such substantial flows of foreign aid to the world's developing countries. Furthermore, a continuation of aid commitments by both multilateral and bilateral donors implies that at least some remain hopeful that aid helps more than it hurts. Within academic community, analyses of the effect of foreign aid on economic growth have produced some promising, but nonetheless mixed, findings (*see* Burnside and Dollar 2000; Easterly 2003).

Despite the good intentions of these sizeable aid commitments, others remain skeptical that aid is achieving the aims of the donor community. Easterly (2006) remarks that five decades and over \$2.3 trillion in foreign aid from the West to developing nations has failed to bring about substantial economic improvements or public health gains for the world's needy. Aside from aid's intended effects, though, a growing body of work has emerged looking at aid's second-hand consequences for both political conflict (Grossman 1992; Collier and Hoeffler 2002; de Ree and Nillesen 2009) and the quality of governance (Brautigam and Knack 2004; Harford and Klein 2005; Djankov et al. 2008).

Within the literature on aid and the quality of governance, many are concerned that aid is leading to the deterioration of state institutions, thereby undermining the development of democracy. In particular, a number of scholars have argued that in-

creased aid flows encourage competition over government resources—known as “rent-seeking”—and discourage political reforms, both of which are associated with higher levels of corruption (Rose-Ackerman 1999; Knack 2001). Others, such as Tavares (2003), argue quite the opposite—that aid reduces corruption by giving aid recipients much needed resources to strengthen state institutions. Not only has the theoretical work on aid and corruption motivated divergent predictions, but the empirical work has produced inconsistent results. The question thus remains: *What is the relationship between foreign aid and levels of corruption among recipient countries?*

Existing work on foreign aid and corruption makes the implicit assumption that aid resources will have a uniform impact across all aid recipients. While some aid recipients are likely to direct such resources to combat corruption, other aid recipients are less likely to do so. Therefore, I argue that aid’s effect on corruption will vary across the domestic political contexts of aid recipients. Political institutions are one such factor that I argue will constrain the way in which aid resources are used. In particular, I contend that the number of veto players—actors that can halt or alter policymaking—mediates the relationship between aid and corruption. When there are more veto players domestically, aid inflows will have a greater reductive effect on levels of corruption. When only one veto player is involved in policymaking, however, aid is unlikely to reduce corruption.

Though the link between official development assistance and corruption is often discussed, both the academic and policy communities have yet to determine if and how aid may influence corruption. As already noted, the academic and policymaking communities have yet to develop a consensus on the relationship between aid and corruption, let alone the causal mechanisms that directly tie corruption levels to aid disbursements. The debates about aid and corruption have revealed a number of shortcomings, in particular, work on how aid’s impact may vary across the institutional context of recipient countries. This project focuses on one such type of

institutional variation—the number of veto players—and how this variation mediates aid’s effects.

This project holds significant implications for policymakers and scholars alike. Corruption can have profoundly damaging consequences, including poverty, lower investment and growth, poor social service provision, and an inability for citizens to seek redress from their elected leaders (Kaufmann and Dininio 2006). Aid’s potential to promote economic and political development depends, at least in part, on whether aid funds are used by recipient states to fuel or combat corruption among public officials. Given that aid levels are on the rise, the possible relationship between aid and corruption should be of growing concern.

If empirical work shows that aid reduces corruption among recipient countries, such results may bolster calls for increased aid donations by industrialized nations. Not only might aid promote economic development, as many donors claim, but it might also have positive side effects. If, however, aid promotes corruption, donors should question the way in which current aid transfers are structured and distributed. Since corruption is thought to hinder development (Jain 2001), donors, at least in the short run, may even question the logic of giving foreign aid at all. Lastly, if aid is found to have no impact on government corruption, then donors may focus more squarely on the direct impact of aid on other development indicators, such as economic growth.

Within the academic literature on aid and governance, my project builds upon past work to establish a more clear-cut link between aid and levels of corruption. Up to this point, the literature on aid and corruption has tended to be underspecified both theoretically and methodologically. My contribution to the aid literature is two fold. First, my empirical work speaks directly to the scant and inconsistent quantitative research on aid and corruption. Second, although scholarly work typically controls for political institutions, I argue, and find empirically, that the potential for aid to

combat corruption is conditional on the political context of the recipient country. While aid may reduce corruption through a variety of ways, increasing the number of veto players will magnify aid's effect; in doing so, political institutions will determine aid's impact on corruption. To my knowledge, only a handful of scholarly works research the interactive effect of aid and domestic institutions on political outcomes (*see* Nooruddin and Simmons 2006; Smith 2008; Kono and Montinola 2009; Wright 2009), and none of these works focus explicitly on corruption.

The Causes of Corruption

The following section situates my project within the broader corruption literature, as well as within the existing scholarly work on foreign aid corruption. First, I build upon Klitgaard's (1988) rational-choice framework to understand the conditions under which corruption emerges and declines. Then, I discuss this framework with respect to the relationship between aid and corruption. Last, I suggest that current scholarship has yet to consider the conditional impact of aid on corruption—that foreign aid's potential to reduce corruption varies with the number of veto players.

Corruption refers to, "Any act in which the power of public office is used for personal gain in a manner that contravenes the rules of the game" (Jain 2001: 241). In other words, corruption represents a situation in which government officials pad their pockets against conventional rules and regulations. Though corruption encompasses a variety of behaviors (e.g. patronage, fraud, nepotism, etc.), two forms of corruption that are particularly relevant to this study include kleptocracy and bribery. Kleptocracy is the theft of a nation's income by its leaders (Bueno de Mesquita et al. 2003), whereas bribery includes illegal side payments made by private firms to public officials in exchange for special services, contracts, or other resources.

To explain the conditions under which corruption both emerges and declines,

Klitgaard (1988) suggests a simple economic model: “The [public official] will act corruptly when her likely net benefits from doing so outweigh the likely net costs” (22). Using this rational choice perspective, variation in the level of corruption is determined by the interaction of benefits and costs to corruption faced by governing officials. In short, added incentives should only increase the extent to which officials undertake corrupt activities in the presence of opportunities and absence of constraints to doing so.

Given Klitgaard’s framework, corruption should rise in the face of increased incentives and opportunities. Though this list is not exhaustive, three factors in particular are likely to determine the benefits to engaging in corruption: the distribution of economic rents, the level of economic competition, and the value of public sector wages. First, corruption will benefit public officials to the extent that they hold discretionary power over the distribution of economic rents. “Rents” are profits that exceed revenues generated from an open and competitive process (Gibson et al. 2005). Public officials can manipulate the distribution of economic rents by regulating the market or legislation. For example, the government may purchase goods and services from the private sector, allocate contracts, grant subsidies, imposes tariffs, or regulate the entry of firms into the market (Rose-Ackerman 1999). Public officials may exploit these activities to favor particular sectors or firms. In other words, officials can use their discretionary power to generate economic rents unequally amongst private firms (Bliss and Di Tella 1997).

As a means to maximizing profits, private firms have an incentive to obtain economic rents. Firms may acquire these rents by bribing public officials to manipulate the market or legislation in their favor (Shleifer and Vishny 1993). When public officials have greater discretionary power over the distribution of rents, they have more to “sell” in exchange for bribes. As long as the profits they will garner from acquiring rents exceed the cost of the bribe, firms have an incentive to bribe officials. By

leading to larger bribes, greater discretionary power increases the potential benefits from engaging in corruption.

One potential source of officials' discretionary power originates from the size of the public sector. Economists have long argued that state intervention in the economy, by increasing discretionary power, will increase the level of corruption. Briefly put, larger governments will produce more opportunities to misuse public office than smaller governments (Goel and Nelson 1998; Aidt 2003). The empirical support for this argument, however, is weak. For instance, the social welfare states of Western Europe and Scandinavia intervene extensively in the economy while observing relatively low levels of corruption. Such examples prompt many to question whether the size of institutions matters as much as their design (Lambsdorff 2005).

In addition to discretionary power over rents, the presence of economic competition among private firms will also influence the potential benefits to engaging in corruption. When greater competition exists among private firms, each firm will have lower excess profits with which to bribe public officials (Bliss and Di Tella 1997; Treisman 2007). Facing lower payoffs, public officials will have fewer incentives to distribute rents in exchange for side-payments. Empirical work on the subject has tested the effect of trade-openness on corruption, finding that greater competition generated by foreign investment lowers corruption between the private and public sectors (Ades and Di Tella 1999; Goldsmith 1999; Gerring and Thacker 2005).

Lastly, public sector wages are also said to determine the incentives of public officials to accept bribes (Goel and Rich 1989). Public sector wages are a premium that is lost if public servants are caught and fired (Rijckeghem and Weder 2001). When wages are low, public servants may attempt to augment their income via illegal means. When wages are higher, however, the marginal benefit of generating additional wages illegally declines (Montinola and Jackman 2002). In short, higher wages increase the opportunity cost of misusing public office, while lower wages make bribery a more

lucrative endeavor.

Benefits aside, there are considerable costs associated with corruption. In particular, corruption is a more costly activity when public officials are monitored and held accountable for their behavior. For one, politicians will be less likely to act corruptly if their behavior is likely to be observed and punished (Goel and Rich 1989). Furthermore, the design of a state's political institutions determines the extent to which such behavior is observed. In encouraging both vertical and horizontal accountability, institutions contribute to variation in the visibility and accountability of public officials. The existence of democratic institutions and the number of veto players may produce such systems of accountability.

First, democratic institutions—which tend to include the presence of a free press, political competition, secondary organizations, the reelection imperative, and an independent judiciary—provide vertical accountability to the public. Such institutions increase the visibility of officials to voters; in turn, democratic institutions increase the likelihood that corrupt behavior is punished (Treisman 2007). Given this claim, many scholars have predicted that democracy will lower the level of corruption. However, empirical work on the relationship between democracy and corruption has produced mixed findings. For example, the effect of democracy on corruption appears to be curvilinear (Montinola and Jackman 2002). Transitioning countries may be more corrupt than full autocracies or well-established democracies. In other words, more democratic institutions do not always bring about less corruption. Treisman's (2007) empirical tests, supported by other work, revealed that only long established democracies observe lower corruption.

Second, the number of institutional or partisan veto players may also constrain levels of corruption. A veto player is “an individual or collective actor whose agreement . . . is required for a change in policy” (Tsebelis 1995: 301). Veto players introduce horizontal accountability in that power is divided among multiple political actors.

For example, coalition partners have an interest in monitoring each other's behavior since their reputation may be tied together. The relationship between the number of veto players and corruption may also be thought of in terms of collective action costs. Extending Rasmusen and Ramseyer's (1994) model, Andrews and Montinola (2004) argue that the rule of law is positively associated the number of veto players in emerging democracies.¹ The underlying mechanism focuses on the ability for collusion on corrupt legislation—with more veto players, it becomes increasingly difficult for legislators to pass legislation or accept side-payments that will allow them to subvert the rule of law. Using their own data on veto players in emerging democracies, Andrews and Montinola (2004) find that countries with more veto players have a stronger rule of law.

In addition to institutions, empirical work has found that the level of economic development is consistently a strong predictor of the level of corruption (Treisman 2007; Montinola and Jackman 2002; Persson and Tabellini 2003). The mechanisms through which development affects corruption, however, remain underdeveloped. Therefore, economic development does not clearly fit within the discussion of costs and benefits to corruption. Nonetheless, there are a few possible mechanisms that may motivate this finding. First, Treisman (2007) points out that economic development may indirectly reduce corruption through its impact on fostering democratic institutions and press freedom. His empirical findings illustrated that including both democracy and press freedom in his regression equation mitigated the effect of economic development on corruption. Second, the level of economic development may simply be a proxy for the size of public sector salaries (Montinola and Jackman 2002). As noted, higher public sector wages have been found to reduce levels of corruption.

Now having introduced some of major arguments regarding the causes of corruption, I turn to the literature linking aid to variation in corruption. The scholarly

¹Though the rule of law is distinct from corruption, Andrews and Montinola (2004) argue that the two are functionally related.

literature holds two opposing claims, that aid increases corruption and that aid reduces corruption. Theoretical work arguing that aid increases corruption has focused on three main mechanisms. First, aid funds may be stolen directly by a nation's leaders. Given that aid augments state resources, aid increases the gains to engaging in kleptocracy, or the direct theft of a nation's income (Knack 2001; Cooksey 2002; Bueno de Mesquita et al. 2003; Brautigam and Knack 2004). Leaders in Zimbabwe and Zambia, for example, have been widely criticized for allegedly stealing aid funds (Berger and Thornycroft 2008; Dugger 2009).

Second, aid may influence the extraction of bribes by public officials. Even if government officials are not stealing aid directly, the allocation of aid resources and contracts may encourage bribery. Public officials with discretionary power over the distribution of such resources may withhold development contracts or grants in exchange for illegal side payments (Svensson 2000; Knack 2001; Arcand and Chauvet 2002; Cooksey 2002; Economides et al. 2004; Gibson et al. 2005; Harford and Klein 2005). By increasing the opportunity to generate economic rents, public officials and private firms have increased benefits to engaging in corruption.

And third, aid may promote corruption indirectly through its deleterious impact on institutional quality. For one, aid presents a "moral hazard" in which incentives to obtain future aid payments may encourage aid recipients to delay meaningful reform, maintain inefficient policies, or engage in risky behavior (Rodrik 1996; Brautigam and Knack 2004; Gibson et al. 2005). Furthermore, Knack (2001) claims that aid may (1) prop up inefficient and kleptocratic regimes; (2) increase political instability (*see also* Grossman 1992); (3) weaken accountability and civil society; and, (4) dilute bureaucratic strength. By weakening the quality of governance, aid is said to harm institutions and lower the costs associated with corruption.

Contrary to the above claims, the aid literature has also identified several mechanisms through which aid may actually reduce corruption. Tavares (2003) argues that

aid could dampen corruption in two ways. First, foreign aid may be allocated along with rules and conditions specified by the donor that limit the discretion of the recipient country's officials ("conditionality effect"). In other words, donors determine the way in which aid funds are used, limiting the discretionary power over the allocation of aid resources and contracts. Insofar as limited discretion reduces the opportunities to engage in corruption, conditional loans should reduce corruption. Second, foreign aid may increase both public revenue and public employees' salaries, thereby diminishing corruption among public officials ("liquidity effect"). As noted earlier, higher wages among public officials will increase the opportunity cost to engaging in corrupt behavior. Also, increased public revenue can be used to strengthen state institutions by attracting more qualified officials, setting up new regulatory bodies, or establishing monitoring agencies. Thus, aid may represent additional resources with which "reform-minded" governments can reform institutions with the intention of limiting corruption (Knack 2001).

Like the theoretical work, empirical findings as to the relationship between aid and corruption are mixed. To my knowledge, Tavares (2003) is the only scholar to find that foreign aid reduces levels of corruption. Considerably more empirical work suggests that aid increases corruption. This work, however, is inconsistent in its measurement of both corruption and aid. For instance, Bueno de Mesquita et al. (2003) find that foreign aid transfers increase the level of kleptocracy, measured as the absolute value of the difference between revenues and expenditures. This measure of kleptocracy is questionable, however, given that some systems may consistently run deficits or surpluses regardless of their level of corruption. Next, Knack's (2001) empirical analysis calculates the effect of the five-year average of foreign aid on the change in corruption over the same five-year period. He finds positive association between changes in aid and changes in corruption (*see also* Alesina and Weder 2002). Lastly, Svensson (2000) also finds that aid increases corruption, albeit only in the

context of high ethnolinguistic fractionalization. Additional work has found that aid reduces the quality of governance and/or democratic institutions (Brautigam 2000; Brautigam and Knack 2004; Djankov et al. 2008).

Although the majority of empirical work associates aid with increased corruption, these findings remain weak. First, the results appear to be very sensitive to choice in dependent variables and control variables. Second, it is unclear what work on aid and the quality of governance suggests about the effect of foreign aid on corruption (*see* Brautigam 1992; Harford and Klein 2005; Morrison 2007; Rajan and Subramanian 2007). After all, corruption is just one component of governance. Third, some scholars estimate the impact of aid on change in corruption (Knack 2001; Alesina and Weder 2002), while others analyze the effect of foreign aid on levels of corruption (Tavares 2003). In short, there lacks a true consensus regarding the empirical relationship between aid and corruption.

In summary, both the theoretical scholarship and empirical findings offer competing claims as to aid's effect on corruption. Prior work has argued that aid may either increase or decrease levels of corruption among recipient countries. These divergent predictions, however, are not mutually exclusive. While aid may increase the incentives to engage in corruption by encouraging rent-seeking behavior, aid may simultaneously reduce corruption by increasing public sector wages, strengthening state capacity, and decreasing discretionary power of public officials. Which effect dominates is an empirical question.

The main weakness in the above aid literature is the assumption that aid has a uniform impact on corruption across institutional contexts. Though the majority of work controls for recipients' regime type, it may very well be the case that aid's impact is contingent upon the existence or absence of certain political conditions. My analysis focuses on the aid's relative impact on corruption, asserting that aid will reduce corruption among states with more veto players.

Scant work has addressed the potentially conditional effect of aid on political and economic outcomes. Svensson's (2000) game-theoretic model and empirical work suggests aid should have a stronger and positive impact on corruption among societies with competing social groups. His model and statistical findings imply that aid to polities more susceptible to rent seeking has the greatest potential to increase corruption. Additional work has found that in countries with more democratic political institutions aid will be used to better prevent political instability (Smith 2008), promote leader survival (Kono and Montinola 2009), and lead to democratization (Wright 2009). To my knowledge, none of the work on the interactive effect of aid and political institutions focuses on the emergence of corruption.

How Veto Players Mediate Aid's Effect

Previous work has identified a variety of mechanisms through which aid can either increase or decrease corruption. When given foreign aid assistance, what will condition how those resources influence corruption? I argue, in contrast to previous work, that aid will not have a uniform impact across all aid recipients. In some cases aid may reduce corruption, while in other cases aid may even increase corruption. For aid to dampen levels of corruption, however, aid must be received within a domestic political context that effectively harnesses additional resources to combat corrupt behavior.

Above, I pointed to several ways in which aid resources can reduce corruption. In particular, aid resources may be used to either enhance the rule of law through strengthened legal institutions or be used to increase public sector wages. Additionally, aid may even promote economic growth (Burnside and Dollar 2000). Whether through its effect on institutions, wages, or economic development, aid has the potential to reduce levels corruption. Aid resources will only lead to such outcomes,

however, under certain conditions. I contend that systems with more veto players are more likely to use aid resources in a way that reduces corruption. Moreover, multiple veto player systems introduce higher costs to using aid resources for corrupt purposes. With one or few veto players, aid is much less likely to reduce corruption—instead, aid may actually increase corruption. The mechanisms through which veto players condition aid’s impact have to do with the separation of political power among aid recipients.

Remember that a veto player is an institutional or partisan actor whose approval is necessary to pass legislation (Tsebelis 1995). Additional veto players introduce separation of powers into the legislative and regulative process. In my review of the veto player literature, I pointed to work suggesting that separation of power within multiple veto player systems is associated with lower levels of corruption. Not only will veto players independently reduce corruption, but the number of veto players will also interact with the level of aid to reduce corruption. First, veto players separate political power among multiple actors. In doing so, additional veto players reduce the discretionary power of each actor over the use of aid resources. Second, separation of power imposes greater risks on and increases coordination costs among public officials. To the extent that misusing aid funds requires coordination among political actors, more veto players will make such coordination more difficult.

To begin, separation of power decreases the discretionary authority of each veto actor over legislation. For example, presidential systems have an institutional separation between the executive (presidency) and the legislative branches. Passage of each piece of legislation is therefore subject to the approval of both institutional actors. As noted previously, public officials have fewer incentives to accept bribes when they hold lower discretionary power over resources (Klitgaard 1988). With respect to the use of aid funds, systems with more veto players grant marginally less discretionary power, or authority, to each individual veto actor over the distribution of aid

resources. When the discretionary power over aid resources is relatively low, each veto player's incentive to misuse this power declines. In short, when there are more veto players, each veto player has fewer aid resources or contracts to sell in exchange for bribes. Therefore, an increase in the number of veto players lowers the likelihood that aid resources will be used for corrupt purposes. When aid is not being used to strengthen corrupt networks, these resources may be used in a variety of ways that will be associated with lower levels of corruption.

In addition to decreasing discretionary power, additional veto players increase transaction costs associated with using aid funds illegally. In doing so, the likelihood that aid will fuel corruption declines as the number of veto players increases. Motivated by Andrews and Montinola's (2004) model, I suggest that a higher number of veto players will make collusion over corrupt use of aid less likely. In distributing aid resources and development contracts, there are transaction costs associated with allocating those resources illegally. For one, veto players may monitor each other's use of aid resources, thereby increasing the risk of being caught. Additionally, coordination over corruption becomes more costly as the number of veto players increase. Corruption requires coordination among veto players (Rasmusen and Ramseyer 1994). With a greater number of actors involved in policymaking, such coordination costs increase substantially (Buchanan and Tullock 1962; Olson 1971). Therefore, it becomes prohibitively costly to use aid funds illegally when there are a greater number of actors involved in the use of aid resources. Rather, aid resources are more likely to be diverted towards strengthening legal institutions, increase public sector wages, or promote economic growth—all negatively associated with corruption.

An assumption of my argument is that coordinating on corrupt legislation or behavior is more costly than coordinating on corruption-reducing policy. Though the costs of coordination may be the same *per se*, corruption also involves the risk of being caught (Klitgaard 1988). Such risks are not present when attempting to use

aid funds for broader public goods, such as the control of corruption. Therefore, the relative cost of coordinating political behavior are highest when they involve risks of being caught engaging in corruption.

If foreign aid is to reduce corruption in countries with more veto players, what is aid's effect when there are fewer veto players? In countries with one or few veto players, aid's effect on corruption is more ambiguous. The mechanisms through which aid affects corruption are not mutually exclusive. Aid may increase corruption via certain mechanisms while simultaneously reducing corruption via other mechanisms. I argued that with more veto players aid's dampening effect on corruption should dominate the relationship. With fewer vetoes, however, it is unclear which effect will dominate. On the one hand, aid may still reduce corruption, but the magnitude of this effect should be lower than in systems with more veto players. On the other hand, using aid resources illegally is relatively less costly given a higher concentration of political power; therefore, aid's positive effect on corruption may dominate any corruption-reducing effect. Whether aid increases corruption or reduces corruption in systems with fewer veto players is an empirical question.

Hypotheses

With respect to aid's relative effect, I claim that aid is more likely to reduce corruption among some recipients than others. In particular, I argue that aid has a greater dampening effect on corruption when there are more veto players within the recipient government. When the aid recipient has fewer veto players, aid will be less likely to reduce corruption.

Hypothesis 1a: Aid will be most likely to reduce corruption as the number of veto players increases.

Hypothesis 1b: With one or few veto players, aid will be less likely to reduce

corruption.

Empirical Analysis

I perform a cross-national, time-series statistical analysis to estimate the effect of aid on the level of corruption. My sample includes 90 developing and transitioning countries for which data were available, from 1984 to 2000. My dependent variable, *Corruption*, is a perceptions-based assessment of corruption within the political system taken from the International Country Risk Guide (ICRG), published by the firm Political Risk Services.² This index takes into account corruption in the form of excessive patronage, nepotism, job reservations, ‘favors-for-favors’, secret party funding, and suspicious connections between politics and business. To my knowledge the ICRG composite measure represents the only corruption data that is amenable to time-series analysis. Most other perceptions-based measures (e.g. Transparency International measures and the World Governance Indicators) change weighting and measurement considerations from year to year.

Given that the unit of analysis is the country year, the corruption variable in my analysis measures the yearly average of monthly corruption ratings. The ICRG experts report monthly corruption levels in an ordinal scale, from 0 (most corrupt) to 6 (least corrupt). First, I take the yearly average of monthly corruption perceptions, after which I collapse these averages into three categories for ease of interpretation. A score of 1 indicates the lowest level of corruption. A score of 2 indicates moderate corruption, and countries with the highest levels of corruption receive a measure of 3. A negative (positive) coefficient on an independent variable suggests that aid is negatively (positively) associated with corruption. Given that my dependent variable, *Corruption*, is measured as a trichotomous ordered response variable, I estimate an

²Political Risk Services, *International Country Risk Guide (ICRG)*, <http://www.prsgroup.com>

ordered logit model. Table 1 presents sample summary statistics for *Corruption* and all independent variables discussed below.

[Table 1 about here.]

My independent variables of interest are foreign aid and the number of veto players. *Aid* measures inflows of foreign aid (Official Development Assistance) as a percentage of Gross National Income (GNI) to control for the variation in the value of aid to each recipient.³ In short, if aid is thought to alter political outcomes, then the impact of aid is a function of the marginal value of each aid dollar. Each aid dollar will have an effect relative to the size of the economy. I log the foreign aid measure, as the distribution of aid is highly right skewed.⁴ *Aid*, as well as all other independent variables, is lagged by one year to ensure that the posited change in the dependent variable is realized after the values of the independent variables are observed.

For the number of veto players, I used the World Bank’s Database of Political Institutions, which estimates the number of veto players—both partisan and institutional—for each country-year observation.⁵ *Vetoes* records the number of *additional* veto players in a system, ranging from 0 to a maximum of 17. While the maximum is 17, there are relatively few countries with more than four additional veto players. To minimize the effect of the outliers, I reshape this variable so that all observations with more than four additional veto players are coded as having only four additional vetoes.⁶ I expect that additional veto players will reduce corruption; therefore, the coefficient on *Vetoes* should be negatively signed.

To test for the relative impact of aid across states with different numbers of vetoes,

³Data for ODA and GNI are extracted from the OECD’s (Organization for Economic Cooperation) DAC online databases. (<http://stats.oecd.org/>)

⁴I add 1 before logging foreign aid to include cases of zero in the analysis.

⁵Keefer, Philip. 2006. *Database on Political Institutions*. Development Research Group, The World Bank

⁶To ensure that my results are not the product of my coding scheme, I reran the analysis without constraining the number of veto players. The results of this additional test are included in my analysis and discussed in a later section.

I include an interaction term of *Aid* and *Veto*es. To confirm hypotheses about the relative impact of aid and veto players on corruption, I expect the interactive aid term, $Aid \times Veto$ es (capturing the effect of aid when a country has one or more additional veto players), to be negative. With regards to aid's additive effect, however, my theory is more ambiguous. Therefore, the coefficient on *Aid* (capturing the effect of aid on corruption when the number of additional vetoes is zero) can be either positive or negative. Most importantly, interpretation of the coefficients on *Aid* and $Aid \times Veto$ es must reveal that aid to systems with no additional veto players is not as likely to reduce corruption as aid to systems with at least one additional veto player.

For control variables, I include factors that other scholars have found to significantly impact levels of corruption. Numerous studies have identified a negative association between political or civil rights (e.g. openness to political competition, freedom of the press, etc.) and levels of corruption (Andrews and Montinola 2004; Treisman 2007). I use a trichomous measure developed by Freedom House that measures the level of political freedom, *Freedom House*.⁷ This measure correlates highly with political and civil rights, as well as with freedom of the press. Higher values indicate a country that is less free. Therefore, I expect the coefficient on *Freedom House* to be positive, indicating that less free systems observe higher levels of corruption.

Second, based on Treisman's (2007) cross-national study of predictors of corruption, I also control for level of economic development. While the causal mechanisms underlying a relationship are unclear, Treisman (2007) points out that the negative association between economic develop and corruption is one of the more robust empirical findings in the literature. As such, I include *GDP per capita*, which measures the natural log of Gross Domestic Product per capita.⁸ The coefficient on *GDP per capita* is expected to be negative.

⁷Norris, Pippa. 2009. "Democracy Timeseries Data" *Release 3.0*. Online: <http://www.hks.harvard.edu/fs/pnorris/Data/Data.htm>

⁸Gleditsch, Kristian and Giacomo Chiozza. 2009. "Introducing Archigos: A Data Set of Political Leaders," *Journal of Peace Research*, 46(2), (March) 2009: 269-183

Work by Ades and Di Tella (1999) suggests that the presence of economic rents encourages greater corruption. They measure rents using two indicators: openness to international trade and exports of primary commodities, such as fuel and minerals. For trade openness I include share of imports as a proportion of Gross National Income, *Imports*.⁹ I expect that states more open to international market competition should observe lower corruption (negative coefficient). Similarly, I include *PCE*, which is Fearon's (2005) country-year interpolated primary commodity exports measure.¹⁰ The coefficient on *PCE* should be positive, indicating that natural resource wealth increases corruption.

In line with Tavares (2003) analysis, I include dummy variables for former French or British colonies.¹¹ The former colony control variables are meant to account for the effect of French and British legal original. Last, given that there appears to be time trends in the ICRG corruption measure, I also include year-fixed effects, estimated by including a dummy variable for each year.

Results

Table 2 presents the results of the ordinal logit analysis of aid on corruption. Note that the coefficients are reported in log-odds scale. Model 1 tests the effect of aid and the number of veto players on corruption without including the interaction of aid and vetoes. Models 2 and 3, however, test the interactive effect of aid and the number of veto players on corruption. For Model 2, countries with more than four additional veto players were recoded as having only four. To make sure that my estimates were not sensitive to this coding scheme, Model 3 runs the same test without constraining

⁹Barbieri, Katherine, Omar Keshk, and Brian Pollins. 2008. *Correlates of War Project Trade Data Set Codebook, Version 2.0*. Online: <http://correlatesofwar.org>.

¹⁰Fearon, James. 2005. "Primary Commodity Exports and Civil War." *Journal of Conflict Resolution*, 49(4): 483-507.

¹¹Minorities at Risk Project. 2009. Minorities at Risk Dataset. College Park, MD: Center for International Development and Conflict Management. (<http://www.cidcm.umd.edu/mar/data.aspx>)

the values of *Veto*es to a maximum of four.

[Table 2 about here.]

Before interpreting the results of my main variables of interest, I will briefly review the control variables. The coefficients on *Veto*es and *GDP per capita* demonstrate that, all else being equal, countries with more veto players and higher economic development are less likely to observe a higher level of corruption.¹² Furthermore, *Freedom House* appears to have a statistically significant and positive impact on corruption across all models. Therefore, as expected, countries with fewer political and civil rights observe higher levels of corruption. *Imports*, *PCE*, and the British and French colony dummies do not appear to have a significant impact on levels of corruption.

Turning to the effect of aid, the results from Model 1 suggest aid may be reducing corruption. The coefficient on *Aid* is negative and significant, indicating that a given increase in aid as a percentage of GNI reduces the odds that a country will place in a higher versus a lower category of corruption. Essentially, increased aid as a percentage of GNI is associated with lower levels of corruption. These results conform to Tavares' (2003) findings of a negative association between foreign aid and corruption.

Hypotheses 1a and 1b suggested that aid would have a stronger negative effect in some cases rather than others. To test this prediction, I estimated the interactive effect of aid and veto players on corruption in Models 2 and 3. Looking first at Model 2, *Aid* (capturing the effect of aid on corruption when *Veto*es equals zero) is negative, but insignificant, indicating that aid to systems with zero additional veto players is unlikely to have a significant effect on corruption. The finding regarding aid to countries with only one total veto player provides support for Hypothesis 1b.

¹²The coefficient on *Veto*es in Model 2 is signed correctly, but this effect is not statistically discernible from zero.

To interpret the coefficient on the interaction term, $Aid \times Vetoes$, Figure 1a and 1b plot the marginal effects of aid on corruption for different values of *Vetoes*. Figure 1a uses the estimates from Model 2 where the value of *Vetoes* is constrained at 4, and Figure 1b provides estimates when *Vetoes* is unconstrained (Model 3). The x-axes indicate the different values of additional veto players, whereas the y-axes give the estimates for the coefficient on the *Aid* variable.¹³ In other words, these two plots demonstrate how the magnitude of the effect of a unit increase in aid on corruption changes across values of the veto players variable. The dotted lines represent the 90% confidence intervals around the estimates.

[Figure 1 about here.]

In Figure 1a, the 90% confidence bounds around the coefficient on *Aid* include zero when *Vetoes* equals zero. The effect of aid at this level of veto players is a reflection of findings presented in Model 2 of Table 2—aid has a statistically insignificant effect on corruption when the number of additional veto players is equal to zero. In Figure 1b, the confidence bounds do not include zero, but are very close. This finding suggests that aid’s effect when there are few veto players may be negative, but the magnitude of this effect is very small.

While aid does not appear to have much of an impact when there are zero additional veto players, aid begins to exhibit a negative effect at one additional veto player. Furthermore, the monotonically declining line indicates that the negative effect of aid on corruption grows stronger as the number of veto players increases. In other words, aid is most likely to decrease corruption at higher numbers of veto players. In Figure 1b, while the trend remains negative, the confidence intervals around the estimate increase substantially and include zero when the number of additional veto players becomes larger than six or seven. The sample includes relatively few countries with this many veto players, which may increase the size of the standard errors around the

¹³Note that when *Vetoes* equals zero, there is one total veto player.

estimated marginal effects. Overall, the trends shown in both figures provide strong support for Hypotheses 1a and 1b.

Table 3 presents the percentage change in the odds of observing higher rather than lower levels of corruption given an increase in aid.¹⁴ These estimates should provide a substantively more meaningful estimate of the marginal effects of aid on corruption at different numbers of veto players. The top set of estimates are calculated given a one standard deviation increase in aid, from slightly above its mean at 5 percent to 12 percent of GNI.¹⁵ The lower box provides the percentage change in odds ratios given slightly more than a two standard deviation increase in aid, from 5 percent to 20 percent of GNI. Columns two and three present the odds of observing higher versus lower values of corruption when aid is at 5 percent, 12 percent, and 20 percent of GNI. Given that the odds of observing higher levels of corruption for all values of aid are below one, aid recipients (at 5 percent, 12 percent, and 20 percent of GNI) are more likely to place in lower rather than higher categories of corruption.

[Table 3 about here.]

The last column in Table 3 estimates the percentage change in the odds of observing higher or lower corruption given a one and two standard deviation in aid. The negative percentage change indicates that a given increase in aid is reducing the odds of observing higher versus lower levels of corruption. Since the change in odds is consistently negative across all values of *Veto*es, an increase in aid of either one or two standard deviations is associated with lower corruption. This finding mirrors the plotted marginal effects in Figures 1a and 1b, given that aid is associated with lower corruption for all values of *Veto*es above zero.¹⁶

¹⁴The estimates in Table 3 were calculated from the parameters derived from Model 2 (*Veto*es ranges from 0 to 4).

¹⁵Note that the sample mean of aid is 4.1 percent of GNI and that a one standard deviation increase in aid is actually 6.8 percent.

¹⁶Model 2 of Table 2 demonstrated that the negative effect of aid on corruption is insignificant when the number of additional veto players is equal to zero.

What is most important to grasp from Table 3, however, is how the magnitude of aid's effect increases with the number of veto players. For instance, increasing aid from 5 to 12 percent of GNI lowers the odds of observing higher levels of corruption by nearly 14 percent at one additional veto player. When the number of additional veto players equals 3, the same increase in aid reduces the odds of observing higher corruption by over 20 percent. Similarly, an increase in aid from 5 to 20 percent of GNI reduces the odds of observing corruption by 21 and 31 percent at one and three additional veto players, respectively. Table 3, along with Figures 1a and 1b demonstrate support for my main theoretical prediction: aid is most likely to reduce corruption when there are more veto players in the recipient country.

Robustness Checks

I ran additional tests with veto player data collected by Andrews and Montinola (2004). Though the trend in the marginal effect of aid on corruption is decreasing with additional veto players, the confidence intervals include zero for most values of *Veto*s.¹⁷ Their veto players data is limited only to emerging democracies, reducing my sample to only 31 countries from 1985 through 1999. The sample size of 350 is significantly smaller than the original 1,353 observations. Therefore, the estimates derived from this additional test are less reliable.

Additionally, I considered the possibility that the ordinal logit model I estimated did not meet the parallel slopes assumption. The ordinal logit model requires that the effect of the covariates be constant across all values of the dependent variable (Borooah 2001). To determine if this requirement is met, one would typically run a Brant test of the parallel slopes assumption. Given that not all my independent variables—in particular, my year dummy variables and the former colony variables—do not vary within each category of my dependent variable, *Corruption*, the Brant

¹⁷See Appendix 1 for a plot of the marginal effects with the Andrews and Montinola (2004) data.

test cannot be calculated. Furthermore, I am unable to use a less restrictive model, such as the Generalized Ordinal Logit model, since it also requires that each covariate vary within each category of the dependent variable. Due to the concern over whether my model meets the restrictions of an ordinal logit, my results should be taken with caution.

Given that the mechanisms through which aid resources may reduce corruption are fairly indirect (i.e. by strengthening institutions, increasing wages, or promoting economic growth), it is likely that aid's impact may be delayed by more than one year. Therefore, I reran the model lagging each of the independent variables by two years rather than one year. Upon lagging each variable by two years, the results of my initial estimates remain unchanged. Not only is the general trend similar, but also the actual estimated effect of aid on the odds of observing corruption at different numbers of veto players is substantively similar.¹⁸ Thus, it is likely that aid's effect on corruption is prolonged over multiple years.

Discussion

I argue that aid is unlikely to have a uniform impact across all recipient countries. Rather, institutional conditions can modify the way in which aid is used, and in turn, mediate aid's effect on political outcomes. My theoretical predictions, supported by empirical tests, point to the way in which veto players condition the effect of foreign aid on levels of corruption. This paper has highlighted how veto players separate power among multiple actors; in doing so, veto players will alter the way resources are translated into policy outcomes. I find empirically that aid actually reduces corruption among recipients with more than one total veto player. Furthermore, aid's negative effect on corruption grows stronger with each additional veto player.

¹⁸See Appendix 2 for a plot of the marginal effects when the independent variables are lagged by two years.

In systems with only one veto player, however, aid appears to have no discernible effect on the level of corruption.

In systems with multiple veto players, it seems clear that mechanisms connecting aid to lower corruption are dominating aid's effect. However, I proposed earlier that aid can have contradictory effects. While some aid may be stolen or misused, any remaining aid may nonetheless be associated with political and economic outcomes (such as strengthened legal institutions) that reduce corruption. Given that I find no effect of aid on corruption when there is only one veto player, it may be the case that aid is simultaneously promoting and reducing corruption, thereby washing out any dominant impact.

My findings should be of interest to both scholars and policymakers. Within the academic community, few have investigated the interactive effect of aid and institutions on political outcomes. Though the focus of this paper is on corruption, research has investigated the effect of aid on a number of other political outcomes, such as civil conflict, democratization, and leader survival. Assuming that aid affects all recipients equally misses an important source of variation in aid's effect. In addition to this paper, work by a few other scholars has also established how aid's influence on recipient countries is mediated by their domestic political and social contexts (Burnside and Dollar 2000; Svensson 2000; Smith 2008; Kono and Montinola 2009; Wright 2009). More work is needed to identify exactly which domestic institutions are truly moderating or magnifying the impact of foreign assistance on recipient countries.

Understanding the conditions under which aid may reduce corruption should be of importance to the policy community as well. Generally, my results are hopeful for the role of aid in promoting political and economic development. As noted, corruption carries a number of harmful effects, such as lower investment, higher poverty, and lower social service provision. Each of these worrisome consequences poses a threat to economic growth and political development. If, under certain circumstances, aid

may reduce corruption, aid should be more likely to achieve the intended aims of donor nations. The results of my empirical analyses suggest that aid resources are associated with lower corruption in systems with more veto players. When not being stolen or fueling corrupt networks, aid resources have the potential to establish legal institutions, promote economic growth, and/or increase public wages—all of which should lower corruption. In the case that an aid recipient has only one veto player, however, policymakers should be more skeptical as to whether aid is rewarding the greedy or being used to help the needy.

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Appendix 1

[Figure 2 about here.]

Appendix 2

[Figure 3 about here.]

Table 1: Sample Summary Statistics

Variable	Mean	Median	Std. Dev.	Minimum	Maximum
Corruption (3 categories)	2.3	2.0	0.6	1.0	3.0
Corruption	2.9	3.0	1.0	0.8	6.0
Aid (USD Millions)	281.1	155.0	408.1	0.0	4,148.6
Aid (% of GNI)	4.1	1.4	6.7	0.0	60.4
$\ln[\text{Aid}(\% \text{ of GNI}) + 1]$	1.1	0.9	1.0	0.0	4.1
Veto Players ^a	1.4	1.0	1.8	0.0	17.0
Veto Players ^b	1.3	1.0	1.4	0.0	4.0
Veto Players ^c	1.9	1.0	1.6	1	13.0
GNI (USD Millions)	55,245.0	10,330.0	118,042.8	130.0	1,183,815.0
GDP per capita	4,634.6	3,190.6	4,698.5	271.0	32,181.7
$\ln[\text{GDP per capita}]$	7.9	8.0	1.0	5.6	10.2
Freedom House	2.1	2.0	0.8	1.0	3
Imports (USD Millions)	12,211.3	3,072.6	24,558.1	59.0	227,430.2
Imports/GNI	0.3	0.3	0.7	0.0	18.6
PCE	0.2	0.1	0.2	0.0	0.9
British Colony	0.4	0.0	0.5	0.0	1.0
French Colony	0.2	0.0	0.4	0.0	1.0

^a World Bank measure, original estimate

^b World Bank measure, maximum of four vetoes

^c Andrews and Montinola (2004) measure; $N = 348$

Table 2: Ordinal Logit Analysis of Aid and Veto Players on Corruption

	(1)	(2)	(3)
Aid	-0.20** (0.10)	-0.14 (0.11)	-0.18* (0.11)
Aid×Veto	—	-0.05 (0.04)	-0.02 (0.03)
Veto	-0.14** (0.05)	-0.09 (0.06)	-0.08** 0.04
GDP per capita	-0.72** (0.10)	-0.71** (0.10)	-0.72** (0.10)
Freedom House	0.29** (0.10)	0.30** (0.10)	0.32** (0.10)
Imports	0.01 (0.06)	0.00 (0.06)	0.01 (0.06)
PCE	0.31 (0.40)	0.39 (0.40)	0.37 (0.41)
British Colony	-0.18 (0.15)	-0.17 (0.15)	-0.16 (0.15)
French Colony	-0.17 (0.16)	-0.17 (0.16)	-0.16 (0.16)
C_1	-8.30 (0.96)	-8.47 (0.96)	-8.19 (0.96)
C_2	-4.51 (0.95)	-4.67 (0.95)	-4.40 (0.95)
N	1,353	1,353	1,353
<i>Log Pseudolik.</i>	-1,039.6	-1,038.9	-1,039.6

* $p < 0.10$, ** $p < 0.05$ *Robust standard errors are in parentheses. Year dummies not shown.*

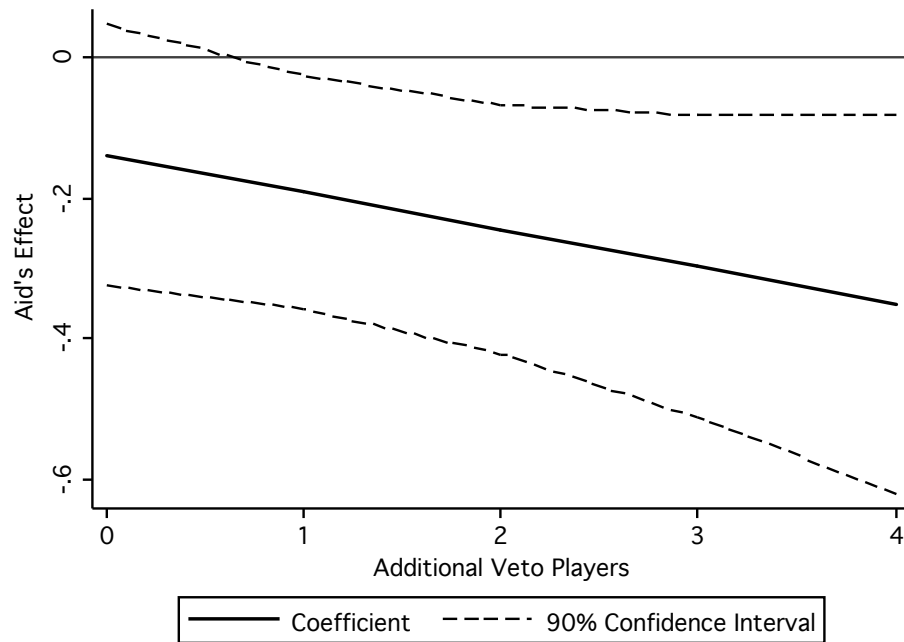
Table 3: Marginal Effects of Aid on Corruption: Percentage Change in Odds

Vetoed	Aid (5%)*	Aid (12%)*	Δ Odds
0	0.78	0.70	-10.1%
1	0.71	0.61	-13.7%
2	0.65	0.53	-17.2%
3	0.59	0.47	-20.5%
4+	0.53	0.41	-23.7%
Vetoed	Aid (5%)*	Aid (20%)*	Δ Odds
0	0.78	0.66	-15.9%
1	0.71	0.56	-21.3%
2	0.65	0.48	-26.3%
3	0.59	0.41	-31.1%
4+	0.53	0.34	-35.5%

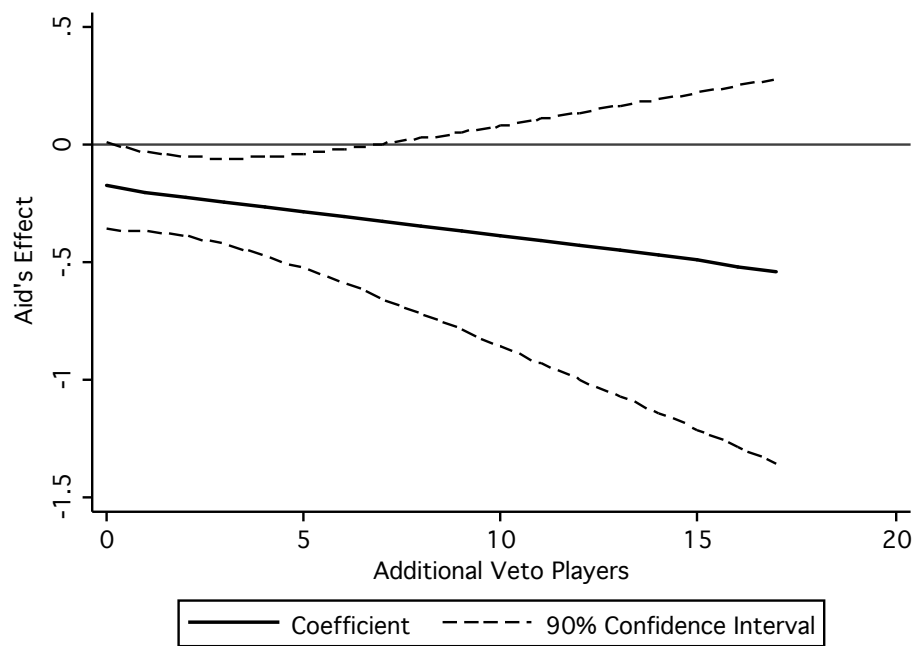
**Estimated in log-odds ratios. Estimates in bold are significant at the $p < 0.05$ level.*

$Aid_{\mu} = 4.1\%$; $Aid_{s.d.} = 6.8\%$

Figure 1: The Marginal Effect of Aid on Corruption



(a) Model 2



(b) Model 3

Figure 2: The Marginal Effect of Aid on Corruption—Andrews and Montinola (2004) Data

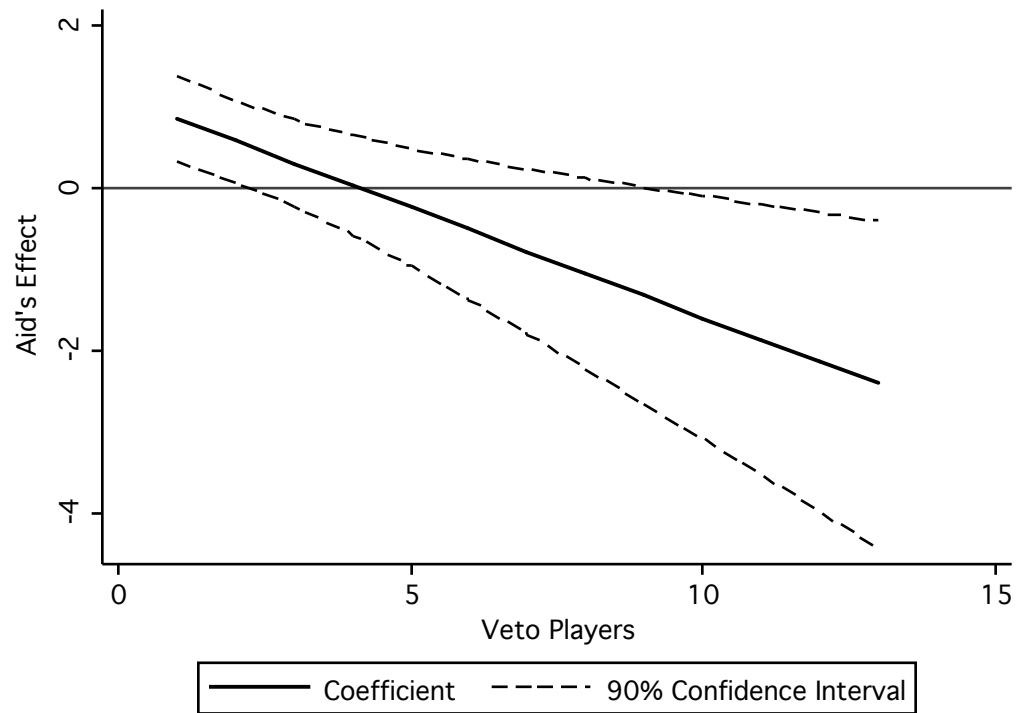


Figure 3: The Marginal Effect of Aid on Corruption—Two-year Lagged Effect

